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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,454	07/24/2001	Jan Robert van Smirren	019929.0144	4455

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EXAMINER
LE, TOAN M

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 06/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/912,454	SMIRREN ET AL.	
	Examiner	Art Unit	
	Toan M Le	2863	

-- The MAILING DATE of this communication appears on the cover she t with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 April 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 4/7/03 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Brumley et al.

Referring to claim 1, Brumley et al. discloses a water measuring system comprising: an ROV 150 (figure 5), an ADCP 152 coupled to the ROV (figure 5), and a computer system 162 (figure 7) for receiving and processing ADCP data and ROV data and displaying processed data in real time as the ADCP and ROV are moving in the vertical direction through a water column (col. 10, lines 54-65), wherein the processed data includes depth and heading data from the ADCP data if such depth and heading data is of a sufficient quality (col. 7, lines 37-53; col. 10, lines 54-65; figures 1a, 1b, 2 and 5).

As to claims 2-3, Brumley et al. discloses a water measuring system, wherein the face of the current profiler on which its acoustic transducers are attached is downward-facing and upward-facing (col. 7, lines 49-52; figures 2, 5, and 6).

Referring to claim 4, Brumley et al. discloses a water measuring system, wherein the system is used to measure water currents in a deep-sea water column (col. 7, lines 37-43).

As to claim 5, Brumley et al. discloses a water measuring system, wherein the deep-sea water column is adjacent to a drilling and/or production riser used in drilling for oil, gas, or other substances (figure 2).

Referring to claim 6, Brumley et al. discloses a water measuring system, wherein the ADCP is shrouded (col. 10, lines 35-37).

As to claim 7, Brumley et al. discloses a water measuring system, further comprising a shroud coupled to and covering the ADCP and including an opening for the transmission and receipt of signals by the transducers of the ADCP (col. 10, lines 35-37).

Referring to claim 8, Brumley et al. discloses a method for processing water measurements in real time, comprising the steps of: receiving depth and heading data from ROV 150 (col. 1, lines 54-57; figure 2); receiving from an ADCP 152, as the ADCP is moving in the vertical direction through a water column (col. 10, lines 54-65), water current velocity data associated with depth cells within the water column (col. 8, lines 1-3; col. 10, lines 54-65; figures 2 and 5); receiving depth and heading data from the ADCP if the depth and heading data of the ADCP is substantially free of interference (col. 2, lines 53-57); processing the current velocity data from each depth cell into data associated absolute depth; assigning absolute depth data to

virtual bins; processing the data for each bin; and outputting the data at a regular interval (col. 1, lines 29-32; col. 2, lines 21-23 and 58-67; and col. 3, lines 1-9; figures 1a, 1b, and 2).

As to claims 9-10, Brumley et al. discloses a method for processing water measurements in real time, further comprising the step of storing the depth and heading data received from the ROV or the ADCP and the current velocity data at a second regular time interval (col. 10, lines 66-67; and col. 11, lines 1-6).

Referring to claim 11, Brumley et al. discloses a method for processing water measurements in real time, further comprising the step of manually stopping the gathering of data by the current profiler (col. 8, lines 30-32).

As to claim 12, Brumley et al. discloses a method for processing water measurements in real time, further comprising the step of storing the processed data for each bin (col. 2, lines 65-67).

Referring to claims 13-14, Brumley et al. discloses a method for processing water measurements in real time, wherein the current profiler is rigidly attached to the ROV; and wherein the face of the current profiler on which its acoustic transducers are attached is downward-facing and upward-facing (col. 7, lines 49-52; figures 2, 5, and 6).

As to claim 15, Brumley et al. discloses a method for processing water measurements in real time, wherein the step of outputting the data at a regular interval comprises the step of providing a graphical display of the processed data (figures 1a and 1b).

Referring to claim 16, Brumley et al. discloses a method for measuring water currents in real time, comprising the step of receiving and processing data in real time from an ADCP,

including depth and heading data, as the ADCP is moving in the vertical direction through a water column (col. 10, lines 54-67; and col. 11, lines 1-2 and 8-14; figure 2).

As to claim 17, Brumley et al. discloses a method for processing water measurements in real time, wherein the ADCP is coupled to an ROV (figure 5).

Referring to claim 18, Brumley et al. discloses a method for processing water measurements in real time wherein the data is received and processed at a computer system remote from the ADCP (col. 11, lines 3-7).

As to claim 19, Brumley et al. discloses a method for processing water measurements in real time wherein the step of processing the data comprises the step of converting data from the frame of reference of the ADCP to a fixed frame of reference (col. 1, lines 57-59; figures 1a and 1b).

Referring to claim 20, Brumley et al. discloses a method for processing water measurements in real time, wherein the data is received and processed at a computer system remote from the ADCP (col. 11, lines 3-7); and wherein the step of processing the data comprises the step of converting data from the frame of reference of the ADCP to a fixed frame of reference (col. 1, lines 57-59; figures 1a and 1b).

As to claim 21, Brumley et al. discloses a method for processing water measurements in real time, wherein the data received by the computer system for processing included data indicative of the water current velocity in the profiling range of the ADCP (col. 15, lines 38-41).

Referring to claim 22, Brumley et al. discloses a method for processing water measurements in real time, wherein the data received by the computer system for processing includes data indicative of the water current heading in the vicinity of the ADCP (figure 2).

As to claim 23, Brumley et al. discloses a method for processing water measurements in real time, further comprising the step of presenting a graphical display of the water current velocity through the water column (figures 1a and 1b).

Remarks:

Response to Arguments

Applicant's arguments filed 4/7/03 have been fully considered but they are not persuasive.

Referring to claims 1-23, Applicants argue that "Specifically, Brumley does not disclose an ROV or vertical movement of the ADCP through a water column during the use of the ADCP.".

Brumley discloses on column 10, lines 54-65, "In figure 5, the transducers 152 are connected to one end of a cylindrical vessel 154 wherein acoustic transmitting, receiving and processing electronics are contained. The transducers 152 are positioned at 90° intervals of azimuth around the periphery of the pressure vessel 154 in a Janus configuration. To achieve multiple degrees of freedom in calculating orthogonal component of velocity, the transducers 152 are canted outward from the longitudinal axis of the pressure vessel 154. The mechanical assembly 150 is conveniently positioned in the water by connecting one or more cables and/or buoys to a pair of mounting lugs 156a,b located on the side of the pressure vessel 154."

Conclusion

THIS ACTION IS MADE FINAL.

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M Le whose telephone number is (703) 305-4016. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0655.

Toan Le

June 11, 2003

John Barlow
Supervisory Patent Examiner
Technology Center 2800